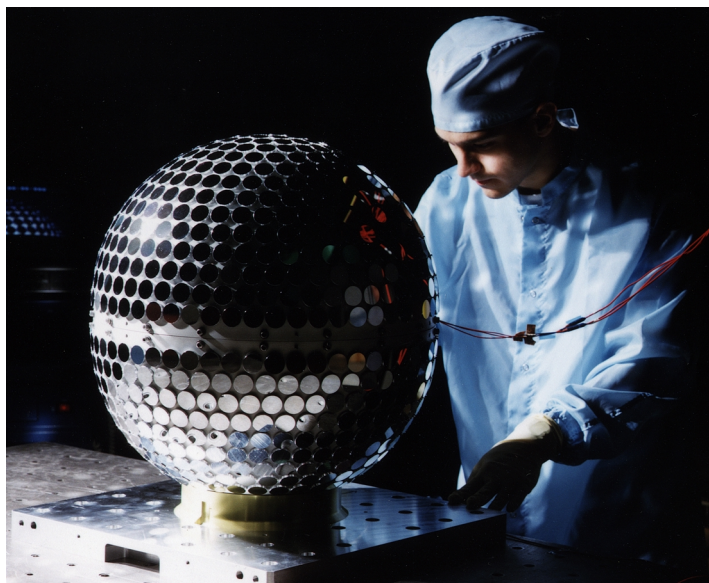


# Be a Part of Project Starshine

Visit <http://www.azinet.com/starshine>



Several small, optically reflective spherical "STARSHINE" student satellites, built by the U.S. Naval Research Laboratory, are being deployed by NASA from Hitchhiker canisters in Space Shuttle cargo bays into highly inclined low earth orbits at a rate of once every year or so. The satellites are covered with nearly 900 small, front-surface aluminum mirrors that are machined by technology students in Utah and polished by tens of thousands of students all over the world. The first of these satellites, called Starshine 1, was deployed into a circular orbit 387 kilometers (230 statute miles) high by the crew of Space Shuttle Discovery on June 5, 1999. It circled the earth every 90 minutes, slowly descending every orbit, until February 18, 2000, when it was consumed by aerodynamic heating at an altitude of approximately 80 kilometers above the Atlantic Ocean off the coast of Brazil.

A second satellite, Starshine 2, is nearing completion for flight on STS-108 in November 2001, and NASA has announced that Starshine 3 satellite will fly on their Kodiak Star mission out of the Kodiak Launch Complex, Alaska, on August 31, 2001. The unmanned launch vehicle for this mission will be a Lockheed Martin Athena I. It will place Starshine 3 in a 500 kilometer (300 mile) circular orbit, inclined to the equator by 67 degrees. This means that the satellite will be visible at twilight to all the children in the world as it orbits the earth for several years.

Starshine II will be nearly a meter in diameter (37 inches) and will weigh 91 kilograms (200 pounds). It will carry 1000 student-polished mirrors, an experimental array of solar cells and thin film batteries from the NASA Glenn Research Center. It will employ a downlink radio transmitter from Cynetics, Inc. to send its scientific measurements to receiving stations at the University of Alaska Fairbanks, the U.S. Naval Academy, Santa Clara University, and other amateur radio receiving stations around the earth. The Naval Research Laboratory is building the satellite with assistance from several colleges. The satellite will be deployed by a Lightband system being built by Planetary Systems Corporation. After certifying the deployment system on the Kodiak Star mission, we plan to use it to deploy Starshine satellites of this larger configuration from Space Shuttle orbiters.

**Plans for Starshine IV and V are under way. Visit the website and get involved.**

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